

What is claimed is:

1. A method of preventing a respiratory syncytial virus (RSV) infection in a mammal, said method comprising administering to said mammal a dose of a prophylactically effective amount of one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens, wherein said prophylactically effective amount is less than 15 mg/kg of said antibodies or antibody fragments.
2. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal infected with RSV, said method comprising administering to said mammal a dose of a therapeutically effective amount of one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens, wherein said therapeutically effective amount is less than 15 mg/kg of said antibodies or antibody fragments.
3. The method of claim 1, wherein said antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for RSV antigens.
4. The method of claim 2, wherein said antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for RSV antigens.
5. The method of claim 1, 2, 3, or 4, wherein the dose is less than 5 mg/kg or less.
6. The method of claim 1, 2, 3, or 4, wherein the dose is 3 mg/kg or less.
7. The method of claim 1, 2, 3, or 4, wherein the dose is 1.5 mg/kg or less.
8. The method of claim 1 or 2, wherein said antibodies or antibody fragments are administered by a nebulizer or inhaler.
9. The method of claim 1 or 2, wherein said antibodies or antibody fragments are administered intramuscularly, intravenously or subcutaneously.
10. The method of claim 1 or 2, wherein said antibodies or antibody fragments administered 1, 2, 3, 4 or 5 times during the RSV season.

11. The method of claim 7, wherein said antibodies or antibody fragments administered 5 times during the RSV season.

12. The method of claim 6, wherein said antibodies or antibody fragments administered 3 times during the RSV season.

13. The method of claim 5, wherein said antibodies or antibody fragments are administered 2 times during the RSV season.

14. The method of claim 1 or 2, wherein at least one of the antibodies is a human or humanized monoclonal antibody.

15. The method of claim 1 or 2, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

16. The method of claim 1 or 2, wherein the mammal is a human infant.

17. The method of claim 1, wherein the mammal is a human infant born prematurely or is at risk of hospitalization for a RSV infection.

18. The method of claim 1 or 2, wherein at least one of the antibodies has the amino acid sequence of SEQ ID NO:7, SEQ ID NO:10, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:88 or SEQ ID NO:92.

19. A method of preventing RSV infection in a mammal, comprising administering to said mammal a first dose of a prophylactically effective amount of one or more antibodies that immunospecifically bind to one or more RSV antigens, wherein said prophylactically effective amount is a dose of less than 15 mg/kg of said antibodies or antibody fragments, wherein said administration results in a prophylactically effective serum titer of said antibodies or antibody fragments that is less than 30 µg/ml at least 20 days after the administration of said first dose and prior to the administration of a subsequent dose.

20. A method of treating or ameliorating one or more symptoms associated with RSV infection in a mammal with a RSV infection, comprising administering to said mammal a first dose of a therapeutically effective amount of one or more antibodies that immunospecifically bind to one or more RSV antigens, wherein said therapeutically effective amount is a dose of less than 15 mg/kg of said antibodies or antibody fragments, wherein said administration results in a therapeutically effective serum titer of said antibodies or antibody fragments that is less than 30  $\mu\text{g/ml}$  at least 20 days after the administration of said first dose and prior to the administration of a subsequent dose.

21. The method of claim 19, wherein said antibodies or antibody fragments bind to a RSV antigen with an affinity constant of at least  $2 \times 10^8 \text{ M}^{-1}$ .

22. The method of claim 20, wherein said antibodies or antibody fragments bind to a RSV antigen with an affinity constant of at least  $2 \times 10^8 \text{ M}^{-1}$ .

23. The method of claim 19, 20, 21 or 22, wherein the dose is less than 5 mg/kg or less.

24. The method of claim 19, 20, 21 or 22, wherein the dose is 3 mg/kg or less.

25. The method of claim 19, 20, 21 or 22, wherein the dose is 1.5 mg/kg or less.

26. The method of claim 23, wherein the serum titer is at least 2  $\mu\text{g/ml}$ .

27. The method of claim 24, wherein the serum titer is at least 2  $\mu\text{g/ml}$ .

28. The method of claim 25, wherein the serum titer is at least 2  $\mu\text{g/ml}$ .

29. The method of claim 19, wherein said prophylactically effective serum titer is less than 30  $\mu\text{g/ml}$  at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

30. The method of claim 20, wherein said therapeutically effective serum titer is less than 30  $\mu\text{g/ml}$  at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

31. The method of claim 21, wherein said prophylactically effective serum titer is less than 30 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

5 32. The method of claim 22, wherein said therapeutically effective serum titer is less than 30 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

10 33. The method of claim 19, wherein the dose is 1.5 mg/kg or less and said prophylactically effective serum titer is at least 2 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

15 34. The method of claim 20, wherein the dose is 1.5 mg/kg or less and said therapeutically effective serum titer is at least 2 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

20 35. The method of claim 21, wherein the dose is 1.5 mg/kg or less and said prophylactically effective serum titer is at least 2 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

36. The method of claim 22, wherein the dose is 1.5 mg/kg or less and said therapeutically effective serum titer is at least 2 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

25 37. The method of claim 19 or 20, wherein said antibodies or antibody fragments are administered by a nebulizer or inhaler.

30 38. The method of claim 19 or 20, wherein said antibodies or antibody fragments are administered intramuscularly, intravenously or subcutaneously.

39. The method of claim 19 or 20, wherein said antibodies or antibody fragments have half-lives in said human subject of greater than 25 days.

35 40. The method of claim 19 or 20, wherein at least one of the antibodies is a human or humanized monoclonal antibody.

41. The method of claim 19 or 20, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

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42. The method of claim 19 or 20, wherein the mammal is a human infant.

43. The method of claim 19, wherein the mammal is a human infant born prematurely or is at risk of hospitalization for a RSV infection.

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44. The method of claim 19 or 20, wherein at least one of the antibodies has the amino acid sequence of SEQ ID NO:7, SEQ ID NO:10, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:88 or SEQ ID NO:92.

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45. A method of preventing a RSV infection in a mammal, said method comprising administering to said mammal a first dose of a prophylactically effective amount of one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens, wherein said prophylactically effective amount is approximately 15 mg/kg or less of said antibodies or antibody fragments and a prophylactically effective serum titer is maintained for at least 20 days after the administration said first dose and prior to the administration of a subsequent dose.

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46. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal, said method comprising administering to said mammal a first dose of a therapeutically effective dose of one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens, wherein said therapeutically effective dose is approximately 15 mg/kg or less of said antibodies or antibody fragments and a therapeutically effective serum titer is maintained for at least 20 days after the administration said first dose and prior to the administration of a subsequent dose.

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47. The method of claim 45, wherein the antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for said RSV antigens.

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48. The method of claim 46, wherein the antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for said RSV antigens.

49. The method of claim 45 or 47, wherein said prophylactically effective serum titer is at least 30  $\mu\text{g/ml}$  of said antibodies or antibody fragments.

50. The method of claim 49, wherein said prophylactically effective serum titer is at least 2  $\mu\text{g/ml}$  of said antibodies or antibody fragments.

51. The method of claim 46 or 48, wherein said therapeutically effective serum titer is at least 30  $\mu\text{g/ml}$  of said antibodies or antibody fragments.

52. The method of claim 51, wherein said therapeutically effective serum titer is at least 2  $\mu\text{g/ml}$  of said antibodies or antibody fragments.

53. The method of claim 45 or 47, wherein the prophylactically effective serum titer is maintained for at least 25 days.

54. The method of claim 45 or 47, wherein the prophylactically effective serum titer is maintained for at least 30 days.

55. The method of claim 46 or 48, wherein the therapeutically effective serum titer is maintained for at least 25 days.

56. The method of claim 46 or 48, wherein the therapeutically effective serum titer is maintained for at least 30 days.

57. The method of claim 49, wherein the prophylactically effective serum titer is maintained for at least 25 days.

58. The method of claim 50, wherein the prophylactically effective serum titer is maintained for at least 25 days.

59. The method of claim 49, wherein the prophylactically effective serum titer is maintained for at least 30 days.

60. The method of claim 50, wherein the prophylactically effective serum titer is maintained for at least 30 days.

61. The method of claim 51, wherein the therapeutically effective serum titer is maintained for at least 25 days.

5 62. The method of claim 52, wherein the therapeutically effective serum titer is maintained for at least 25 days.

63. The method of claim 51, wherein the therapeutically effective serum titer is maintained for at least 30 days.

10 64. The method of claim 52, wherein the therapeutically effective serum titer is maintained for at least 30 days.

65. The method of claim 45 or 46, wherein said antibodies or antibody fragments are administered by a nebulizer or inhaler.

15 66. The method of claim 45 or 46, wherein said antibodies or antibody fragments are administered intramuscularly, intravenously or subcutaneously.

20 67. The method of claim 45 or 46, wherein said antibodies or antibody fragments have half-lives in said human subject of greater than 25 days.

68. The method of claim 45 or 46, wherein at least one of the antibodies is a human or humanized monoclonal antibody.

25 69. The method of claim 45 or 46, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

30 70. The method of claim 45 or 46, wherein the mammal is a human infant.

71. The method of claim 45, wherein the mammal is a human infant born prematurely or is at risk of hospitalization for a RSV infection.

35 72. The method of claim 45 or 46, wherein at least one of the antibodies has an amino acid sequence of SEQ ID NO:7, SEQ ID NO:10, SEQ ID NO:78, SEQ ID NO:79, SEQ

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ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:88 or SEQ ID NO:92.

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5 73. A sustained release formulation comprising one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens.

74. A pharmaceutical composition comprising one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens for pulmonary delivery.

10 75. The sustained release formulation of claim 73, wherein the antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for said RSV antigens.

76. The pharmaceutical composition of claim 74, wherein the antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for said RSV antigens.

15 77. The sustained release formulation of claim 73, wherein at least one of the antibodies or antibody fragments is SYNAGIS® or an antigen-binding fragment thereof.

78. The pharmaceutical composition of claim 74, wherein at least one of the  
20 antibodies or antibody fragments is SYNAGIS® or an antigen-binding fragment thereof.

79. The sustained release formulation of claim 73, wherein at least one of said antibodies or antibody fragments is a human or humanized antibody or antibody fragment.

25 80. The pharmaceutical composition of claim 74, wherein at least one of said antibodies or antibody fragments is a human or humanized antibody or antibody fragment.

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30 81. The sustained release formulation of claim 73, wherein at least one of said antibodies at least one of the antibodies has an amino acid sequence of SEQ ID NO:7, SEQ ID NO:10, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:88 or SEQ ID NO:92.

82. The pharmaceutical composition of claim 74, wherein at least one of said antibodies at least one of the antibodies has an amino acid sequence of SEQ ID NO:7, SEQ ID  
35 NO:10, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:88 or SEQ ID NO:92.



83. The sustained release formulation of claim 73, wherein at least one of said antibodies or antibody fragments has an increased *in vivo* half-life.

84. The pharmaceutical composition of claim 74, wherein at least one of said antibodies or antibody fragments has an increased *in vivo* half-life.

85. A method of preventing a RSV infection in a mammal, said method comprising administering to said mammal a prophylactically effective amount of the sustained release formulation of claim 73, 75, 77, 79, 81, or 83.

86. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal with a RSV infection, said method comprising administering to said mammal a therapeutically effective amount of the sustained release formulation of claim 73, 75, 77, 79, 81, or 83.

87. A method of preventing a RSV infection in a mammal, said method comprising administering to the lungs of said mammal a prophylactically effective amount of the pharmaceutical composition of claim 74, 76, 78, 80, 82, or 84.

88. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal with a RSV infection, said method comprising administering to the lungs of said mammal a therapeutically effective amount of the pharmaceutical composition of claim 74, 76, 78, 80, 82, or 84.

89. The method of claim 85, wherein the sustained release formulation is administered intramuscularly, intraveneously or subcutaneously.

90. The method of claim 85, wherein the sustained release formulation is administered by a nebulizer or inhaler.

91. The method of claim 86, wherein the sustained release formulation is administered intramuscularly, intraveneously or subcutaneously.

92. The method of claim 86, wherein the sustained release formulation is administered by a nebulizer or inhaler.

93. The method of claim 87, wherein the pharmaceutical composition is administered by a nebulizer or inhaler.

94. The method of claim 88, wherein the pharmaceutical composition is administered by a nebulizer or inhaler.

95. The method of claim 85, wherein the mammal is a human subject.

96. The method of claim 86, wherein the mammal is a human subject.

97. The method of claim 87, wherein the mammal is a human subject.

98. The method of claim 88, wherein the mammal is a human subject.

99. The method of claim 95, wherein the human subject has had a bone marrow transplant, is elderly, or has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

100. The method of claim 96, wherein the human subject has had a bone marrow transplant, is elderly, or has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

101. The method of claim 97, wherein the human subject has had a bone marrow transplant, is elderly, or has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

102. The method of claim 98, wherein the human subject has had a bone marrow transplant, is elderly, or has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

103. The method of claim 95, wherein the human subject is an infant.

104. The method of claim 95, wherein the human subject is an infant born prematurely or is at risk of hospitalization for a RSV infection.

105. The method of claim 96, wherein the human subject is an infant.

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106. The method of claim 96, wherein the human subject is an infant born prematurely.

107. The method of claim 97, wherein the human subject is an infant.

108. The method of claim 97, wherein the human subject is an infant born prematurely.

109. The method of claim 98, wherein the human subject is an infant.

110. The method of claim 98, wherein the human subject is an infant born prematurely.

111. A method of preventing a RSV infection in a mammal, said method comprising  
15 administering to said mammal a first dose of a prophylactically effective dose of SYNAGIS® or an antigen-binding fragment thereof in a sustained release formulation, wherein said prophylactically effective dose is approximately 15 mg/kg or less of SYNAGIS® or an antigen-binding fragment thereof and a prophylactically effective serum titer of at least 30 µg/ml is maintained for at least 20 days after the administration said first dose and prior to the  
20 administration of a subsequent dose.

112. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal with a RSV infection, said method comprising administering to said mammal a first dose of a therapeutically effective dose of SYNAGIS® or an antigen-binding fragment thereof in a sustained release formulation, wherein said therapeutically effective dose is approximately 15 mg/kg or less of SYNAGIS® or an antigen-binding fragment thereof and a prophylactically effective serum titer of at least 30 µg/ml is maintained for at least 20 days after the administration said first dose and prior to the administration of a subsequent dose.

113. The method of claim 111, wherein said prophylactically effective serum titer is maintained for at least 25 days after the administration of the first dose and prior to the administration of a subsequent dose.

114. The method of claim 111, wherein said prophylactically effective serum titer is maintained for at least 30 days after the administration of the first dose and prior to the administration of a subsequent dose.

5 115. The method of claim 112, wherein said therapeutically effective serum titer is maintained for at least 25 days after the administration of the first dose and prior to the administration of a subsequent dose.

10 116. The method of claim 112, wherein said therapeutically effective serum titer is maintained for at least 30 days after the administration of the first dose and prior to the administration of a subsequent dose.

117. The method of claim 111 or 112, wherein SYNAGIS® or an antigen-binding fragment thereof is administered by a nebulizer or inhaler.

15 118. The method of claim 111 or 112, wherein SYNAGIS® or an antigen-binding fragment thereof is administered intramuscularly, intravenously or subcutaneously.

20 119. The method of claim 111 or 112, wherein SYNAGIS® or an antigen-binding fragment thereof is administered 1, 2, 3, 4, or 5 times during the RSV season.

25 120. The method of claim 111 or 112, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

121. The method of claim 111 or 112, wherein the mammal is a human infant.

30 122. The method of claim 111, wherein the mammal is a human infant born prematurely or is at risk of hospitalization for a RSV infection.

123. A method of preventing a RSV infection in a mammal, said method comprising administering to said mammal a first dose of a prophylactically effective dose of one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens with an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  in a sustained release formulation, wherein said prophylactically effective dose is approximately 15 mg/kg or less of said antibodies or antibody

fragments and a prophylactically effective serum titer of less than 30 µg/ml is maintained for at least 20 days after the administration said first dose and prior to the administration of a subsequent dose.

5           124. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal with a RSV infection, said method comprising administering to said mammal a first dose of a therapeutically effective dose of one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens with an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  in a sustained release formulation, wherein said therapeutically effective  
10 dose is approximately 15 mg/kg or less of said antibodies or antibody fragments and a therapeutically effective serum titer of less than 30 µg/ml is maintained for at least 20 days after the administration said first dose and prior to the administration of a subsequent dose.

15           125. The method of claim 123, wherein said prophylactically effective serum titer is at least 2 µg/ml.

20           126. The method of claim 123 or 125, wherein said prophylactically effective serum titer is maintained for at least 25 days after the administration of the first dose and prior to the administration of a subsequent dose.

25           127. The method of claim 123 or 125, wherein said prophylactically effective serum titer is maintained for at least 30 days after the administration of the first dose and prior to the administration of a subsequent dose.

30           128. The method of claim 124, wherein said therapeutically effective serum titer is at least 2 µg/ml.

35           129. The method of claim 124 or 128, wherein said therapeutically effective serum titer is maintained for at least 25 days after the administration of the first dose and prior to the administration of a subsequent dose.

          130. The method of claim 124 or 128, wherein said therapeutically effective serum titer is maintained for at least 30 days after the administration of the first dose and prior to the administration of a subsequent dose.

131. The method of claim ~~123~~ or 124, wherein said antibodies or antibody fragments are administered by a nebulizer or inhaler.

132. The method of claim 123 or 124, wherein said antibodies or antibody fragments  
5 are administered intramuscularly, intravenously or subcutaneously.

133. The method of claim ~~123~~ or 124, wherein said antibodies or antibody fragments are administered 1, 2, 3, 4, or 5 times during the RSV season.

10 134. The method of claim ~~123~~ or 124, wherein said antibodies or antibody fragments have half-lives in said human subject of greater than 25 days.

135. The method of claim ~~123~~ or 124, wherein at least one of the antibodies is a human or humanized monoclonal antibody.

15 136. The method of claim ~~123~~ or 124, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

20 137. The method of claim ~~123~~ or 124, wherein the mammal is a human infant.

138. The method of claim 123, wherein the mammal is a human infant born prematurely or is at risk of hospitalization for a RSV infection. .

25 139. The method of claim ~~123~~ or 124, wherein at least one of the antibodies has an amino acid sequence of SEQ ID NO:10, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:88 or SEQ ID NO:92.

30 140. A method of preventing a RSV infection in a mammal, said method comprising administering to said mammal a dose of a prophylactically effective amount of one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens and have increased *in vivo* half-lives, wherein said prophylactically effective amount is a dose  
35 approximately 15 mg/kg or less of said antibodies or antibody fragments.

141. A method of treating or ameliorating one or more symptoms associated with a respiratory syncytial virus (RSV) infection in a mammal infected with RSV, said method comprising administering to said mammal a dose of a prophylactically effective amount of one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens and have increased *in vivo* half-lives, wherein said prophylactically effective amount is a dose approximately 15 mg/kg or less of said antibodies or antibody fragments.

142. The method of claim 140, wherein said antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for RSV antigens.

143. The method of claim 141, wherein said antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for RSV antigens.

144. The method of claim 140, 141, 142 or 143, wherein the dose is less than 5 mg/kg or less.

145. The method of claim 140, 141, 142 or 143, wherein the dose is 3 mg/kg or less.

146. The method of claim 140, 141, 142 or 143, wherein the dose is 1.5 mg/kg or less.

147. The method of claim 140, 141, 142 or 143, wherein the increase in *in vivo* half-life is from 21 days to at least 25 days.

148. The method of claim 140, 141, 142 or 143, wherein the increase in *in vivo* half-life is from 21 days to at least 30 days.

149. A method of preventing a RSV infection in a mammal, said method comprising administering to said mammal a dose of a prophylactically effective amount of HL-SYNAGIS or an antigen-binding fragment thereof, wherein said prophylactically effective amount is a dose of approximately 15 mg/kg or less of SYNAGIS® or an antigen-binding fragment thereof which results in a prophylactically effective serum titer that is at least 30 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

150. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a human subject infected with RSV, said method comprising administering

to said human subject a dose of a therapeutically effective amount of HL-SYNAGIS or an antigen-binding fragment thereof, wherein said therapeutically effective amount is a dose of approximately 15 mg/kg or less of SYNAGIS® or an antigen-binding fragment thereof which results in a therapeutically effective serum titer that is at least 30 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

151. The method of claim 149 or 150, wherein said antibodies or antibody fragments are administered by a nebulizer or inhaler.

152. The method of claim 149 or 150, wherein said antibodies or antibody fragments are administered intramuscularly, intravenously or subcutaneously.

153. The method of claim 149 or 150, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

154. The method of claim 149 or 150, wherein the mammal is a human infant.

155. The method of claim 149, wherein the mammal is a human infant born prematurely or is at risk of hospitalization for a RSV infection.

156. A method of preventing a RSV infection in a mammal, said method comprising administering to said mammal a dose of a prophylactically effective amount of one or more antibodies or fragments thereof, wherein said antibodies or fragments thereof immunospecifically bind to one or more RSV antigens and have increased *in vivo* half-lives, and wherein said prophylactically effective amount is a dose of approximately 15 mg/kg or less of said antibodies or antibody fragments which results in a prophylactically effective serum titer of less than 30 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

157. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal infected with RSV, said method comprising administering to said mammal a dose of a therapeutically effective amount of one or more antibodies or fragments thereof, wherein said antibodies or fragments thereof immunospecifically bind to one or more RSV antigens and have increased *in vivo* half-lives, and wherein said therapeutically effective



amount is a dose of approximately 15 mg/kg or less of said antibodies or antibody fragments which results in a therapeutically effective serum titer of less than 30 µg/ml at least 30 days after the administration of said first dose and prior to the administration of a subsequent dose.

5        158. The method of claim 156, wherein said antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for RSV antigens.

159. The method of claim 157, wherein said antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for RSV antigens.

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160. The method of claim 156 or 157, wherein the prophylactically effective serum titer is at least 2 µg/ml.

15        161. The method of claim 156 or 157, wherein the therapeutically effective serum titer is at least 2 µg/ml.

162. The method of claim 149, wherein the prophylactically effective serum titer is at least 40 µg/ml.

20        163. The method of claim 149, wherein the prophylactically effective serum titer is at least 50 µg/ml.

164. The method of claim 150, wherein the therapeutically effective serum titer is at least 40 µg/ml.

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165. The method of claim 150, wherein the therapeutically effective serum titer is at least 50 µg/ml.

30        166. The method of claim 149, wherein the prophylactically effective serum titer is at least 30 µg/ml at least 35 days after the administration of said first dose and prior to the administration of a subsequent dose.

35        167. The method of claim 150, wherein the therapeutically effective serum titer is at least 30 µg/ml at least 35 days after the administration of said first dose and prior to the administration of a subsequent dose.

168. The method of claim ~~156~~ or 158, wherein the prophylactically effective serum titer is at least 2 µg/ml at least 35 days after the administration of said first dose and prior to the administration of a subsequent dose.

5 169. The method of claim ~~157~~ or 159, wherein the therapeutically effective serum titer is at least 2 µg/ml at least 35 days after the administration of said first dose and prior to the administration of a subsequent dose.

170. The method of claim ~~149~~ or 150, wherein HL-SYNAGIS or an antigen-binding  
10 fragment thereof is formulated in a sustained release formulation.

171. The method of claim ~~156~~ or 157, wherein said antibodies or fragments thereof are formulated in a sustained release formulation.

15 172. The method of claim ~~156~~ or 157, wherein said antibodies or fragments thereof are administered by a nebulizer or inhaler.

173. The method of claim ~~156~~ or 157, wherein said antibodies or fragments thereof are administered intramuscularly, intravenously or subcutaneously.

20 174. The method of claim ~~156~~ or 157, wherein said antibodies or fragments thereof have half-lives in said human subject of greater than 25 days.

175. The method of claim ~~156~~ or 157, wherein at least one of the antibodies is a  
25 human or humanized monoclonal antibody.

176. The method of claim ~~156~~ or ~~157~~, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease,  
30 congenital immunodeficiency or acquired immunodeficiency.

177. The method of claim ~~156~~ or 157, wherein the mammal is a human infant.

178. The method of claim 156, wherein the mammal is a human infant born  
35 prematurely or is at risk of hospitalization for a RSV infection.

179. The method of claim 156 or 157, wherein at least one of said antibodies comprises a VH CDR1 having the amino acid sequence of SEQ ID NO:1, SEQ ID NO:12 or SEQ ID NO:44, a VH CDR2 having the amino acid sequence of SEQ ID NO:2, SEQ ID NO:45, SEQ ID NO:52, SEQ ID NO:66, SEQ ID NO:75 or SEQ ID NO:96, a VH CDR3  
5 having the amino acid sequence of SEQ ID NO:3, SEQ ID NO:13, SEQ ID NO:22, SEQ ID NO:32 or SEQ ID NO:46, a VL CDR1 having the amino acid sequence of SEQ ID NO:4, SEQ ID NO:15, SEQ ID NO:38, SEQ ID NO:48, SEQ ID NO:58 or SEQ ID NO:86, a VL CDR2 having the amino acid sequence of SEQ ID NO:5, SEQ ID NO:16, SEQ ID NO:26, SEQ ID NO:29, SEQ ID NO:36, SEQ ID NO:41, SEQ ID NO:49, SEQ ID NO:54, SEQ ID NO:59,  
10 SEQ ID NO:63, SEQ ID NO:72, SEQ ID NO:77, SEQ ID NO:91 or SEQ ID NO:95, or a VL CDR3 having the amino acid sequence of SEQ ID NO:6 or SEQ ID NO:17

180. A method of preventing a RSV infection in a mammal, said method comprising administering to the lungs of said mammal a first dose of a prophylactically effective amount  
15 of a composition comprising one or more antibodies or fragments thereof that immunospecifically bind to one or more RSV antigens, wherein said prophylactically effective amount results in a prophylactically effective concentration of at least 20 ng per mg of lung protein at least 20 days after the administration said first dose and prior to the administration of a subsequent dose.

181. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal infected with RSV, said method comprising administering to the lungs of said mammal a first dose of a therapeutically effective amount of a composition comprising one or more antibodies or fragments thereof that immunospecifically bind to one  
25 or more RSV antigens, wherein said therapeutically effective amount results in a therapeutically effective concentration of at least 20 ng per mg of lung protein at least 20 days after the administration said first dose and prior to the administration of a subsequent dose.

182. The method of claim 180, wherein said antibodies or antibody fragments have  
30 an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for RSV antigens.

183. The method of claim 181, wherein said antibodies or antibody fragments have an affinity of at least  $2 \times 10^8 \text{ M}^{-1}$  for RSV antigens.

35 184. The method of claim 180 or 181, wherein said antibodies or antibody fragments have *in vivo* half-lives of greater than 30 days.

185. The method of claim 180 or 181, wherein said antibodies or antibody fragments have *in vivo* half-lives of greater than 30 days.

Sub BC  
5 186. The method of claim 180 or 181, wherein said antibodies or antibody fragments are administered by a nebulizer or inhaler.

187. The method of claim 180 or 181, wherein said antibodies or antibody fragments are administered intramuscularly, intravenously or subcutaneously.

10 188. The method of claim 180 or 181, wherein at least one of said antibodies is a human or humanized monoclonal antibody.

189. The method of claim 180 or 181, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human  
15 subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

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190. The method of claim 180 or 181, wherein the mammal is a human infant.

20 191. The method of claim 180 or 181, wherein the mammal is a human infant born prematurely or is at risk of hospitalization for a RSV infection.

Sub. A 38  
25 192. The method of claim 180 or 181, wherein at least one of the antibodies has an amino acid sequence of SEQ ID NO:10, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:88 or SEQ ID NO:92.

193. A method of preventing a RSV infection in a mammal, said method comprising administering to the lungs of said mammal a first dose of a prophylactically effective amount  
30 of a composition comprising SYNAGIS® or a fragment thereof, wherein said prophylactically effective amount results in a prophylactically effective concentration of at least 20 ng per mg of lung protein at least 20 days after the administration said first dose and prior to the administration of a subsequent dose.

35 194. A method of treating or ameliorating one or more symptoms associated with a RSV infection in a mammal infected with RSV, said method comprising administering to the

lungs of said mammal a first dose of a therapeutically effective amount of a composition comprising SYNAGIS® or a fragment thereof, wherein said therapeutically effective amount results in a therapeutically effective concentration of at least 20 ng per mg of lung protein at least 20 days after the administration said first dose and prior to the administration of a  
5 subsequent dose.

195. The method of claim 193 or 194, wherein SYNAGIS® or an antigen-binding fragment thereof is administered by a nebulizer or inhaler.

10 196. The method of claim 193 or 194, wherein SYNAGIS® or an antigen-binding fragment thereof is administered intramuscularly, intravenously or subcutaneously.

197. The method of claim 193 or 194, wherein the mammal is a human subject, a human subject which has had a bone marrow transplant, an elderly human subject, or a human  
15 subject which has cystic fibrosis, bronchopulmonary dysplasia, congenital heart disease, congenital immunodeficiency or acquired immunodeficiency.

198. The method of claim 193 or 194, wherein the mammal is a human infant..

20 199. The method of claim 193, wherein the mammal is a human infant born prematurely or is at risk of hospitalization for a RSV infection.

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